2. (amended) A solid electrolyte battery according to claim 1, wherein said porous polyolefin film contains polyethylene.

REMARKS

Independent claim 1 and dependent claims 2-10 are currently pending. Claim 1 recites a solid electrolyte battery that includes a positive electrode, a negative electrode, and a separator having opposing first and second surfaces, disposed between the positive electrode and the negative electrode. The separator is made of a polyolefin porous film having a thickness not less than 5 μm nor greater than 15 μm and a porosity not less than 25 % nor greater than 60 %,

Claim 1 has been amended to recite that the solid electrolyte battery includes a solid electrolyte disposed adjacent to the first separator surface between the positive electrode and the separator and disposed adjacent to the second separator surface between the separator and the negative electrode. The impedance in the solid electrolyte battery is higher at a temperature not less than 100° C nor greater than 160° C than the impedance at room temperature. Support for the amendment is found, *inter alia*, in Figs. 1 and 2, at page 10, lines 1-4, and at page 26, lines 5-7 of the original specification. Enclosed is a Version of the claims with Marking to Show Changes Made.

The examiner requested a substitute specification in proper idiomatic English. Enclosed is such a Substitute Specification along with a statement that it contains no new matter.

The examiner objected to claims 1-10 on the ground that "polyolefine" should read "polyolefin." As can be seen by the above amendments, this change has been made, so that this ground for rejection has been overcome.

The examiner objected to claims 1-10 on the ground that the number and location of battery elements is unclear from the phrase "solid electrolytes each of which is disposed between . . ." As can be seen by the above amendments, the language of claim 1 has been changed to make clear that the battery comprises a positive electrode, a negative electrode, a separator having opposing first and second surfaces disposed between the positive and negative electrodes

and "a solid electrolyte disposed adjacent to said first separator surface between said positive electrode and said separator and disposed adjacent to said second separator surface between said separator and the negative electrode." Therefore, this ground for rejection has been overcome.

The examiner objected to the term "vacancy ratio." As can be seen by the above amendments, at the examiner's suggestion, this term has been replaced with the term "volume porosity." Therefore, this ground for rejection also has been overcome.

The examiner rejected independent claim 1 and dependent claims 2-10 under 35 U.S.C. § 103(a) as obvious in light of a combination of Pendalwar *et al.* and Spotnitz *et al.*. Reconsideration is respectfully requested. Nothing in these references, whether considered alone or together would have suggested a solid electrolyte battery with a polyolefin film separator having a thickness of not less than 5 μm nor greater than 15 μm and a volume porosity of not lower than 25 % nor higher than 60 %, where the solid electrolyte is disposed *adjacent* to the a separator surface between the positive electrode and the separator and disposed *adjacent* to a second separator surface between the separator and the negative electrode.

As acknowledged by the examiner, Pendalwar *et al.* would not have suggested a separator having the claimed thickness or volume porosity. Spotnitz *et al.*, in turn, is directed to gel electrolyte batteries having an *adherent coating* 46 disposed between the separator 42 and the gel electrolyte 44. (See, for example FIG. 1 and the accompanying discussion.) Spotnitz *et al.* warns that in the absence of such an adherent coating, the gel-forming polymer can delaminate or strip away from the separator. Therefore, there would have been no motivation for one skilled in the art to substitute the separator taught in Spotnitz *et al.*, without an adhesive coating, for the separator taught in Spotnitz *et al.*. It would not have been obvious to dispose the separator taught in Spotnitz *et al. adjacent* (*i.e.*, without an intermediate adhesive layer) to the separator surfaces, as is recited in claim 1. Therefore, the rejection of claims 1-10 under 35 U.S.C. § 103(a) in light of a combination of Pendalwar *et al.* and Spotnitz *et al.* should be withdrawn.

CONCLUSION

In light of the foregoing amendments, remarks, and substitute specification, it is believed that the application is in condition for allowance, so that a prompt and favorable response is earnestly requested.

Respectfully submitted,

SONNENSCHEIN NATH & ROSENTHAL

July 29, 2002

By: _____
Jeffrey F. Craft
Registration No. 30,044

SONNENSCHEIN NATH & ROSENTHAL
P.O. Box #061080
Wacker Drive Station
Sears Tower
Chicago, IL 60606-6404
(213)623-9300

I hereby certify that this document and any fee being referred to as attached or enclosed is being deposited with the United States Postal Service as first class mail in an envelope addressed to Assistant Commissioner for Patents, Washington, D.C. 20231 on

July 29, 2002
Date

Jeffrey F. Craft

Version with Marking to Show Changes Made

Claims 1 and 2 have been amended as follows:

1. (amended) A solid electrolyte battery comprising:

a positive electrode;

a negative electrode disposed opposite to said positive electrode;

a separator having opposing first and second surfaces, disposed between said positive electrode and said negative electrode; and

a solid electrolyte[s each of which is] disposed adjacent to said first separator surface between said positive electrode and said separator and disposed adjacent to said second separator surface between said separator and said negative electrode, wherein

said separator is [constituted by] made of a polyolefin[e] porous film, said polyolefin[e] porous film having [has] a thickness [satisfying a range] not [smaller] less than 5 μm nor [larger] greater than 15 μm and a [vacancy ratio satisfying a range] porosity not [lower] less than 25 % nor [higher] greater than 60 %, and the impedance in said solid electrolyte battery is higher at a temperature not less than 100° C nor greater than 160° C than the impedance [realized] at [the] room temperature [when the temperature of said solid electrolyte battery satisfies a range not lower than 100° C nor higher than 160° C].

2. (amended) A solid electrolyte battery according to claim 1, wherein said porous polyolefin[e] film contains polyethylene.